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Health and wellness tips for your work, home and life—brought to you by the insurance specialists at M3 Insurance

The Dangers of Radon

Environmental changes to promote a healthier you

Though you cannot see, smell or taste radon, it can still be present in your home.

According to the U.S.

Environmental Protection

Agency (EPA), when you

breathe radon-contaminated

air, you increase your risk of

getting lung cancer. In fact,

the U.S. Surgeon General

warns that radon is the

second-leading cause of lung

cancer in this country next to

smoking. Plus, if you smoke

and radon is present in your

home, your risk increases

greatly.

This problem is not isolated to one geographic area or to a certain type of house. It is estimated that nearly one out of every 15 homes in the United States has an elevated radon level (4 pCi/L or more), which poses health risks.

What is Radon?

Radon is a naturally occurring radioactive gas produced by

the breakdown of uranium in soil, rocks and water. Since the air pressure inside of your home is generally lower than the pressure in the soil around the foundation, your house acts as a vacuum, drawing radon gas in through cracks in the foundation and other openings.

Radon may also be present in your water source and can consequently be ingested when drinking or released into the air when water is used for general household purposes, like showering.

Since you cannot see or smell radon gas, testing is the only way to determine if the air and water in your home contains it.

Testing

The EPA reports that radon presence can vary by day, season and geographic area. It can even vary in a small area such as between you and your next door neighbor's home. The level of radon ultimately depends on the local geology, how houses were built and the materials that were used to construct them. Therefore, all

homeowners and potential buyers should test for radon.

Buying a home:

Before purchasing a home, the EPA recommends that you test its air and water quality. If the seller has already tested the home for radon, obtain the results to determine if the levels are too high. If the home has not been tested for radon, it is wise to have the levels checked before agreeing to buy. Here are some other instances in which you should have the home tested:

- The seller did a radon test but it was two or more years ago
- The home was renovated or altered since it was last tested
- You plan to occupy a lower level of the home than what was tested by the seller, such as the basement



- The state or local government requires disclosure of radon information to potential buyers

Testing options:

To test your home for radon, you can order a kit by mail from a qualified radon measurement service provider, purchase one from a local hardware store or drug store or hire a qualified radon tester (often also a home inspector).

- Passive devices:
 - These devices, which do not require power to function, are exposed to the air in the home for a specific period of time and are then sent to a lab for analysis.
 - They are generally fairly inexpensive and are popular testing options for home inspectors.
 - Examples: Charcoal canisters, alpha-track detectors, charcoal liquid scintillation devices and electret ion chamber detectors.
- Active devices:
 - These devices continuously measure and record the amount of radon in the air. They report unusual or abnormal swings in the radon level over a period of time, which can be explained by a qualified tester.
 - These tests are

generally more expensive but are also more reliable since they are designed to deter test interference.

- Examples: Continuous radon monitors and continuous working level monitors.

Testing duration:

Both passive and active test models are available for short- and long-term testing, which yield slightly different results.

- Short-term testing:
 - These devices remain in the home for two to 90 days, depending on the test.
 - Generally used in a real estate transaction when results are needed quickly.
- Long-term testing:
 - These devices remain in the home for more than 90 days and provide a reading that is more comparable to the year-long average radon reading versus a reading during a particular season.
 - Used to confirm short-term test results.

Testing recommendations:

- Conduct a radon test for a minimum of 48 hours. Follow the specific time constraints as outlined by the test you choose.
- Close your house to the outdoors (windows and doors) for at least 12 hours prior and during a short-term

test.

- Operate your home's heating and cooling system as you would normally, except when conducting a short-term test lasting less than a week. Then, only use air-conditioning units that re-circulate indoor air only.
- Do not disturb the testing device.
- If you conduct the test on your own, promptly send in the unit and all the required information (test location, start and stop times, etc.) to the laboratory as soon as the test is complete.

Test Results

If a radon test reveals that the home level is 4 pCi/L or above, then the level of radon in the air is a danger to your health. To put this into perspective, the outdoor level is roughly 0.4 pCi/L, which is where Congress would like the air quality in residential homes to be. Though this is not always an attainable goal due to technological constraints, radon levels can be reduced to around 2 pCi/L by installing a radon mitigation system.

A qualified radon reduction contractor can install a radon mitigation system in your home for approximately \$800 to \$2,500. If your home's water source has high levels of radon, the contractor can install a point-of-entry treatment device. In doing so, you will reduce the risk of getting lung cancer by lowering the level of radon in your home.

Did You Know...?

Testing for radon is easy, quick and inexpensive. You can personally test your home using a device available at your local store, purchase it by mail or hire a qualified contractor to test for you. You can even get the results in as little as 48 hours.